

## Galway Neuroscience Centre (GNC) Annual Research Day

# Friday 2<sup>nd</sup> December, 2022 - Seminar Room B001, Human Biology Building

Time			
9.00	Dr Derek Morris (Director of the GNC): Arrival and Welcome to GNC Annual Research Day		
	Session 1 Chairs: Dr Derek Morris and Dr Sinead King		
9:15	Dr Siobhain O'Mahony (University College Cork)		
	Pregnancy and beyond: role of the microbiome-gut-brain axis		
10:00	<b>Emma Corley</b> The Effects of Genetics, Inflammation and Childhood Trauma on Cognition in Patients with Psychosis and Healthy Controls		
10:10	<b>Tommy Patton</b> Neurotrophin-enriched hydrogels improve human iPSC-derived dopaminergic graft survival and differentiation in athymic nude rats, but not in cyclosporine immunosuppressed rats		
10:20	Dr Cansu Sahin Correlation of acute ischemic stroke clot composition with ex vivo electrical impedance measurements		
10:30	<i>Xi Luo</i> Development of metabolic biomarkers for Parkinson's Disease diagnosis and progression based on clinical data and computational modelling		
10:40	Shane Crinion Exploring causal relationships via gene expression for chronotype and neuropsychiatric disorders		
10:50	Tea & Coffee		
11:30	<ul> <li>Petra Wallinger (Nextstim Plc) Nextstim - Transcranial magnetic stimulation (TMS) made visible, accurate and reproducible, from Bench to Bedside</li> <li>Henri Hannula &amp; Petri Savolainen (Nextstim Plc)</li> <li>Live Demonstration Nexstim SmartFocus ® TMS</li> </ul>		
	Dr Roisin McMackin (Trinity College Dublin)		
12:15	Harnessing electrophysiological measures to quantify neural network dysfunction in neurodegeneration		
12:45	Posters & Lunch		
	Session 2 Chairs: Dr Michelle Roche and Dr Ronan Fleming		
14:00	<i>Emmet Godfrey and Conor Gavin (both University of Galway)</i> Schizophrenia in Irish online print news media		
14:30	<b>Aodán Laighneach</b> Social isolation-induced transcriptomic changes in mouse hippocampus are related to synapse structure and function and show convergence with human genetic risk for neurodevelopmental disorder		
14:40	Mary Hopkins Sexually dimorphic effects of intervertebral disc injury on pain hypersensitivity in a rat model of chronic low back pain		
14:50	Yagmur Bozkurt           Characterisation of Protein N-glycosylation in Multiple Sclerosis		
15:00	<b>Cameron Keighron</b> Lund human mesencephalic (LUHMES) cells – robust modelling of Parkinson's Disease?		
15:10	<b>Rebecca Mahoney</b> Cell-type specific changes in gene expression and chromatin accessibility in schizophrenia		
15:20	Dr Sandrine Géranton (University College London)         Does epigenetic memory of early life adversity predispose to chronic pain?		
16:05	Prize-giving, meeting close and wine reception		

#### **Poster presentations: Seminar Room G001**

#### Odd number posters present at 12:45-13:15

#### Even number poster present at 13:15-13:45

### (Please stand by your poster at this time)

1	Ailbhe Tummon	SILENT syndrome - a case of lithium neurotoxicity on maintenance therapy
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2	Alba María Diego	Effect of repeated restraint stress and incisional injury on depression- and anxiety- related behaviour in rats
3	Andrew Douglas	Matrix metalloproteinase-9 expression levels in acute ischaemic stroke (AIS) clots of different etiologies
4	Aoife Doherty	Inflammation-Induced Mechanical Hypersensitivity is Reduced in a Preclinical
		Model of Autism and Associated with Reduced cFos Expression in the
		Periaquaductal Grey and Dorsal Raphe Nucleus
5	Aoife O'Connell	Examination of In Vitro Beta-Amyloid Oligomerization
6	Aoife Warren	An investigation of the domain specificity of metacognition and its relationship to
		transdiagnostic psychiatric symptoms
7	Ariadni Bella	Repeated restraint stress enhances and prolongs mechanical and thermal
		hypersensitivity post-surgery in male rats
8	Bianca Castelli	Generation of oxidative stress in B104 cells as positive controls for a point-of-care (POC) device
9	Catherine Healy	Characterisation of chronic pain-related behaviour of a preclinical wound model
		and associated alterations in the endocannabinoid system
10	Chiara Di Marino	Characterisation of a model of chemotherapy-induced neuropathic pain in rats of both sexes
11	Duaa Jabrah	Myosin-9 in Acute Ischemic Stroke Clots Extracted by Mechanical Thrombectomy:
		Correlation with Etiology
12	Giulia Comini	Biomaterial-enhanced human iPSC-derived brain repair in Parkinsonian rats: an
		early comparison of graft-hydrogel-host interactions in athymic vs. cyclosporine
		immunosuppressed rats
13	Hadjar Rahou	Stoichiometric modularisation of combinatorial lipid modelling
14	James Lyons	Childhood Trauma, Inflammation and Cognition in Schizophrenia: The moderating role of substance use and medication
15	Josep Fumado	In vitro model of cerebrovascular accidents: a testing platform for novel drug
	Navarro	delivery systems
16	Kaushik Narasimhan	Investigating the suitability of polyhedrin microcarriers for sustained delivery of neurotrophins to engrafted cells in the Parkinsonian brain
17	Maria Redmond	Characterisation of anxiety- and depression-related behaviour and investigation of
17		associated alterations in the endocannabinoid system in a rat incisional wound
		model
18	Patrick Hurley	Toward a model of ectopic lymphoid follicles in multiple sclerosis
19	Saahithh Redddi	Higher Toll-like receptor and cytokine expression and activity in patients suffering
	Patlola	from schizophrenia
20	Sorour Nemati	The effect of macromolecular crowders on deposition of extracellular matrix in
		astrocytes
21	Wenyi Liu	Understanding the clots that cause strokes: a compositional and proteomic analysis
		of acute ischemic stroke blood clots
22	Yanjun Liu	Conserved Moiety Fluxomics: A novel flux quantification method utilising structural
22	N: 71 -	conserved moieties and tracer-based metabolomics data
23	Ying Zhai	Investigating the effect of caffeine on -amyloid induced neurotoxicity and its link
24	Na-l	with the GABAergic system in mouse primary hippocampal cultures
24	Małgorzata	Organotypic brain slice culture from neonatal and adult rats as an ex-vivo platform
25	Dąbrowska Maria Lingganu	for neurodegenerative disease research
25	Maria Lipceanu	Development of a Protocol for the Extraction and Measurement of
		Endocannabinoids and Endocannabinoid-Related Ligands from Skin/Wound Tissue